

CONJONCTURE

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"Our economy, of course, is changing everyday, and in that sense it is always new".

Alan Greenspan

Why world trade is so sluggish

World trade has slowed sharply compared to global GDP growth since 2012. Is the slowdown in world trade due to cyclical factors, and sluggish investment above all others? Or is it due to more far-reaching structural changes, in which case world trade is unlikely to return to the vigorous growth rates observed from the mid-1990s to the mid-2000s.

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By Catherine Stephan

Argentina: a radical change

Argentina's economic policy has taken a more liberal turn since Mauricio Macri took power in November 2015. The new government's first measures were mainly designed to shore up the country's external liquidity and bolster its image in the eyes of the international financial community. This change of direction occurs at a time when the country has entered recession, inflation remains stubbornly high and the clean-up of public finances is only just getting underway. In the medium term, recent reforms could prove to be an effective way to attract non-resident and resident investment.

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By François Faure / Sylvain Bersinger



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Catherine Stephan

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According to its latest outlook of September 2016, the World Trade Organisation (WTO) estimates that global merchandise trade and world GDP will increase 1.7% and 2.5%, respectively, this year. That would make 2016 the weakest year for trade and economic growth since the 2009 financial crisis. For the first time in fifteen years, the ratio of world merchandise trade growth to world GDP growth would be less than 1.

World trade, as measured by global imports of goods and services, has been slowing since 2012. The elasticity of imports to GDP – which measures the change in imports due to a 1% increase or decrease in GDP – was close to 2 between 1995 and 2007, but has been holding around 1 since 2012 (see chart 1). This raises the question of whether the decline in the elasticity of trade is a temporary phenomenon or the sign of more far-reaching changes (see box 1).

To provide some answers to this question, we will begin by reviewing the factors behind the world trade boom from the mid-1990s to the mid-2000s. We will look at the effects of trade deregulation and improvements in transport and communications on supply chain segmentation and trade. By looking at the past, we should be able to get a better picture of the probable causes of the decrease in the elasticity of world trade to output since 2012, which will be reviewed in part two. Trade dynamics were undermined by cyclical factors, namely sluggish eurozone growth, the slowdown in the emerging economies and the change in the composition of demand to the detriment of investment. We will see how structural factors also contributed to the slowdown

in trade. In recent years, we have seen a rise in protectionism, higher wage costs in China and an upmarket shift in certain emerging economies. All of these factors hampered the international segmentation of the supply chain and trade. Lastly, the framework for world trade is probably evolving. Consequently, in the last part of this paper we will try to identify some areas of reflection.

Slowdown in world trade

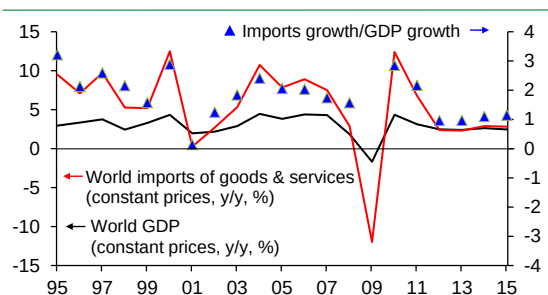


Chart 1

Source: World Bank

The boom in world trade from the mid-1990s to the mid-2000s

A more propitious environment for trade

The weaker elasticity of world trade to GDP must be evaluated in the light of the increased elasticity during the 1990s and early 2000s, a period marked by major structural changes.



Box 1

Why this issue is so important

Certain beneficial effects of international trade are sometimes called into question. For example, the impact of foreign direct investment (FDI) on the developing countries is not only positive. Changes induced by FDI might be accompanied by industrial restructuring, with negative effects on income distribution and employment in the host country. The environment can also be endangered, notably by the extractive and heavy industries¹. In the 19th century, Friedrich List, and other theoreticians thereafter, vaunted the merits of “pragmatic protectionism” for developing countries and emerging industries.

However, a number of theories on international commerce, starting with David Ricardo’s theory of comparative advantage, as well as empirical evidence suggest that expanding trade favours economic activity. Through economies of scale and productivity gains, international commerce and the expansion of markets makes it possible to import and export products at better prices, thereby fostering demand and growth. It also increases the diversity of products on offer. In the developing countries, it promotes technology transfers and human capital formation through direct investment and participation in international supply chains.

The fall of the Berlin wall in 1989 heralded the arrival of the Eastern European countries on the world scene and the beginning of a trade boom with the economies of Western Europe. In value terms, the eurozone’s merchandise exports and imports with the Czech Republic, Hungary, Poland and Romania rose from 1.9% of eurozone GDP in 1999 to 5.1% in 2015. Europe also embarked on a new phase of integration with the creation of a monetary area comprised of eleven member countries on 1 January 1999². The single currency, which was gradually adopted by eight other countries³, favoured trade within the eurozone by eliminating forex expenses and improving price transparency. It also facilitated trade

with third countries. Eurozone companies were able to export more easily to countries outside the monetary area thanks to lower trade costs, notably certain fixed costs pertaining to accessing foreign markets. The openness ratio⁴ of the eurozone – which now includes the former Eastern European block – rose from 30.7% in 1995 to 42.5% in 2015. Similarly, China has also integrated the world economy and grown in power since the launch of economic reforms and openness policies in the early 1980s. As a share of international trade in goods and services, China’s weighting has increased from nearly 1% in 1990 to 10% in 2015 (see chart 2).

Major participants in world trade in 2015



Chart 2

Source: World Bank

Globalisation and the deregulation of world trade also gained momentum with the signing of new free-trade agreements in the early 1990s. The Uruguay Round of multilateral trade negotiations, spanning from 1986 to 1994, resulted in the creation of the World Trade Organisation (WTO) on 1 January 1995 and the adoption of a new set of trade agreements. They included not only GATT, the General Agreement on Tariffs and Trade, but also agreements on the services sector, intellectual property and the rules for settling disputes between WTO members. Although tariffs remained high in some sectors (agriculture, textiles), on the whole these agreements enabled the developed countries to lower the average tariff on manufactured goods from 40% in 1947 to less than 5% today.



All these factors, combined with new technological advances, enabled companies to benefit better from the comparative advantages of the various participants in world trade. During the 1990s, improvements in transport and new information and communication technologies facilitated the rapid coordination of tasks in increasingly long supply chains, spread out over a growing number of distinct production areas geographically separate from each other. A growing number of parts and components could be imported, in particular by the emerging countries, in order to process and re-export them. This period was also characterised by the deindustrialisation of the Northern countries and the industrialisation of the Southern countries, which were integrated in global supply chains. China and the United States were major players in this segmentation process. A growing proportion of US domestic demand was being met through Chinese imports. The parts and components imported by China were assembled into end products and exported to the United States.

Within this framework, economies with comparable levels of development and the same level of factor endowments and technology were able to develop trade for similar goods. According to the new theory of international commerce, it was in a country's interest to specialise in a given variety of goods in order to benefit from economies of scale, and to import variants of the same product in order to provide consumers with a differentiated selection of products. Countries with comparable levels of economic development tend to trade more together. Together, the eurozone and the United States accounted for more than 35% of world trade of goods and services, and received nearly 42.5% of foreign direct investment flows in 2015.

World trade boom

These changes went hand in hand with the increase in the stock of direct investment⁵, which rose more than eight-fold between 1990 and 2007 (see chart 3). The increase was even more notable in East Asia and Southeast Asia (excluding Hong Kong), and especially in China. In 2007, these regions accounted for only 7% and 2%, respectively, of the stock of investment flows (compared to 29% and 20%, respectively, for the United

States and the eurozone), but this was a 13-fold and 16-fold increase compared to 1990. Trade within value chains coordinated by transnational companies (intragroup or intergroup) are linked to the activities of multinational firms. According to UNCTAD, this trade accounts for 80% of world trade each year.

Foreign direct investment stock

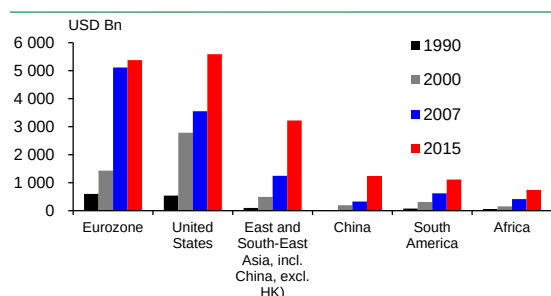


Chart 3

Source: UNCTAD

The increasingly narrow segmentation of the supply chain was also accompanied by greater participation of various economies in world trade. The openness of the global economy rose from 19.4% in 1980 to a peak of 30.6% in 2008 (see chart 4). International commerce, based on the volume of world imports of goods and services, grew at an average annual rate of 6.3% between 1995 and 2008, which is much faster than the average GDP growth rate of 3.3% over the same period. These changes also increased the sensitivity of trade to an abrupt drop-off in activity during a crisis.

Trade openness rate

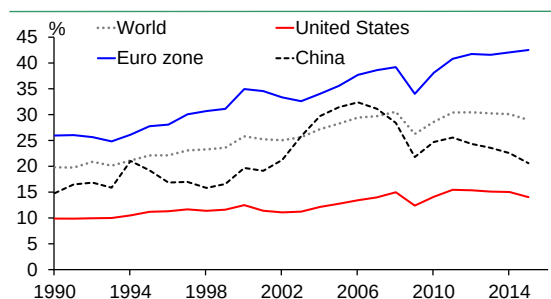


Chart 4

Source: World Bank



Trade responds more strongly to changes in economic activity

Due to these new specificities, trade became more sensitive to changes in economic activity. The development of global supply chains went hand in hand with the increase in trade of intermediate goods used in the production process. A given decline in output is accompanied by a reduction in trade not only of end products, but also of intermediate goods used in the production process, which are traded several times.

The longer the supply chain, the more severe the adjustment in stocks and orders. When demand is on the rise, companies at every level of the supply chain want to build up inventory for precautionary purposes or to benefit from discounts on bulk purchases. The further a company is positioned from the end consumer, the less accurate its ability to forecast demand, which varies depending on the inventory needs of companies located further downstream in the supply chain. As a result, demand becomes disconnected from real end demand and increases. Inversely, this bullwhip effect will lead companies located further upstream in the production chain to overreact to a decline when demand drops. Initially, producers of end goods will dip into their stock of intermediate goods. As a result, demand for intermediate goods slows to a greater extent than end demand. In the end, companies further upstream in the supply chain are more likely to take a cautious approach and scale back production and trade in intermediate goods more rapidly than if they had access to the same information as companies further downstream.

An IMF study by Cristina Constantinescu et al. (2015) shows that trade is more sensitive to income shocks in the short run. The short-run elasticity of imports to GDP – which measures the change in imports following a 1% increase or decrease in GDP – rose from 2.8 in the period 1986-2000 to 3.4 in the period 2001-2013. As a result, variations in world trade of goods and services were much bigger following the 2008 crisis. World trade, measured in terms of the volume of global imports of goods and services, increased 12.4% in 2010 and 6.8% in 2011, after plunging 12% in 2009.

Several reasons for the slowdown in world trade

It is hard to distinguish between trend and cyclical components

World trade has failed to return to the growth rates observed from the mid-1990s to mid-2000s. The elasticity of imports to GDP, which was close to 2 between 1995 and 2007, has been holding around 1 since 2012.

Several studies have tried to identify the structural or cyclical nature of the slowdown in world trade. According to an OECD study by Patrice Ollivaud and Cyrille Scwellnus (2015), GDP trends provide a suitable explanation for the evolution of world trade since the 2008 crisis. The study suggests that 85% of the weak elasticity since 2008-2009 can be attributed to cyclical factors. According to an IMF study conducted by Cristina Constantinescu et al. (2015), in contrast, cyclical factors explain only half of the slowdown in international commerce in 2013 compared to the 2000s. The long-run decline in elasticity suggests that structural factors are also at work. This decline, visible as of the early 2000s, bolsters this idea. According to the IMF study, the long-run elasticity of international commerce declined from 2.4 in 1991-2000 to 1.5 in 2001-2007, before dropping after the crisis to 0.7 in 2008-2013. The UNCTAD report “Key statistics and trends in international trade” (2015) also arrives at a similar conclusion.

Similarly, the CEPII study by Sébastien Jean (2015) highlights a slowing trend. He observes a significant difference between the observed value in 2012 and 2013 and the one calculated by the model built thanks to data collected between 1995 and 2008. Indeed, this model, a function of economic growth, and the start-up of new trade agreements in numerous countries, notably China, shows that, all other factors being equal, a 1% increase in the GDP of trading partners coincides with a 1.4% increase in the value of trade in the short run, and a 1.7% increase in the long run.



It is difficult to estimate precisely the impact of each of these cyclical and structural factors on current fluctuations in world trade. Regardless of the method used (see box 2), however, the decline in

the elasticity of world trade to GDP since the outbreak of the crisis seems to be due both to cyclical and structural factors, which we will review below.

Box 2

The identification of a slowdown

The choice of data influences the analysis

The size of the decline in elasticity varies depending on the data used. For its analysis, the OECD study uses GDP calculated on the basis of exchange rates instead of purchasing power parity (PPP), as used in many studies. Calculating GDP based on PPP is most often used to make comparisons between economies. It measures GDP in volume, and thus living standards. Purchasing power parity, which equals the price relationship in the local currency for the same goods or services, is used to estimate the quantity of goods and services that a currency can purchase in each of the countries under review. Using GDP based on purchasing power parity is nonetheless called into question when measuring the elasticity of world trade of tradeable goods to economic activity. GDP derived from PPP gives greater weight to the emerging countries than GDP based on exchange rates. In the emerging countries, prices of non-tradeable goods and services are less costly than in the developed countries. This differential is especially big during periods of strong growth. The decline in elasticity following the 2008 crisis is not as big when GDP is calculated using market exchange rates instead of purchasing power parity. According to the study, using GDP at PPP, elasticity slowed from 1.9 in the period 1986-2000 to 1.7 in 2001-2007 and 0.9 in 2008-2014, while using GDP based on market exchange rates, elasticity slowed from 2.1 to 2 and 1.3, respectively, over the same time periods.

The model used also influences the outcome

The difference in their conclusions can be attributed to different methodologies. The CEPII study uses a gravitational model that assumes that trade between two countries is a function of the product of their respective GDPs, and is inversely proportional to the geographic distance separating the countries. The IMF study uses an error correction model. It estimates the speed at which the short-run elasticity of world trade to GDP returns to the long-term equilibrium rate. It can also be used to measure the long-run elasticity over different time periods, and to identify changes in the trade-GDP relationship, i.e. to identify ruptures in trends. Tests are then carried out to show that the decrease in long-run elasticity, as highlighted in the study, is the fruit of structural changes. This model has several drawbacks. It assumes that GDP is an exogenous variable that determines world trade, whereas the two variables are actually endogenous and co-determined, i.e. they influence each other. Moreover, due to its structure, the error correction model attributes the decline in long-run elasticity to a structural rupture in the trade-GDP relationship, whereas it might be due to an extended slowdown in GDP. The decline in long-run elasticity might also be due to changes that end up being temporary. To offset the error correction model's troubles in taking into account medium-term or temporary trends, the OECD uses a less restrictive model based on growth rates. The long-run elasticity can decline when the world economy slows without assuming that there is a change in the long-term trade-GDP relationship. In this case, the decline in long-run elasticity following an economic slowdown does not necessarily mean that there is a structural change in the trade-GDP relationship.



The cyclical nature of the slowdown in world trade

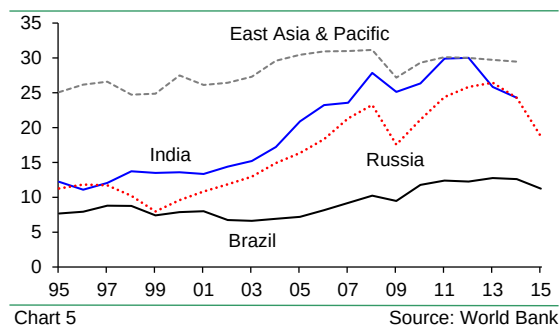
Regional disparities

We will begin by looking at growth and trade trends within specific geographic areas to better appreciate the dynamics at work since the 2008 crisis.

These trends differ depending on the region. In 2012 and 2013, there was a cyclical gap between the United States on the one hand, which consolidated its recovery (GDP growth of 2.2% in 2012 and 1.7% in 2013), and the eurozone on the other, which slipped back into recession following the intensification of the sovereign debt crisis. This was followed by a period of tighter financing constraints and high uncertainty, which strained corporate investment. In the end, GDP contracted 0.9% in 2012 and 0.3% in 2013, while foreign trade contracted 1% in 2012 and only barely managed to swing back into positive territory in 2013. Since then, the eurozone has begun to recover, but growth remains below the levels observed in the United States. This gap influences the global elasticity of trade due to the intensity of intra-zone trade and the high weighting of European trade as a share of world trade. Its weighting was 25% in 2015, whereas eurozone GDP based on purchasing power parity accounted for 12% of world GDP in 2015. In the eurozone, intra-zone trade between member countries (10% of world trade) – which is particularly intense due to the absence of tariff and non-tariff barriers – is calculated as part of world trade. When economic growth slows within the eurozone, it thus has a big influence on world trade via intra- and extra-zone trade.

Similarly, the slowdown in the emerging economies since 2010, and especially since 2014, strains world trade more than their GDP growth trends alone would seem to suggest. The depreciation of their currencies against the US dollar, which can be attributed to the slowdown in growth, was accompanied by higher import prices. As a share of GDP, import volumes declined over the past two years in East Asia and the Pacific region, in India and in Brazil (see chart 5). In this respect, the impact was bigger for the Asian countries than for the Latin American countries due to the respective trade weighting of total merchandise imports, which was 30.8% and 3.8%, respectively, in 2015.

Imports of goods and services



A recovery supported by less import-rich demand

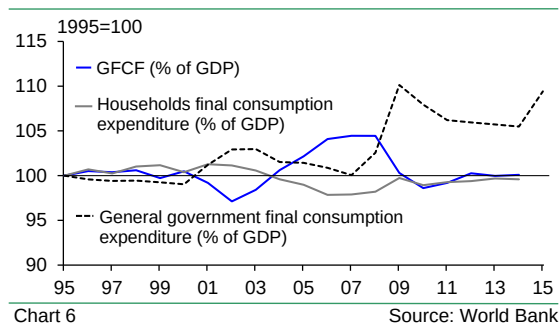
A change in the composition of GDP influenced elasticity in the period following the 2008-2009 crisis, notably the protracted weakness of investment spending.

The productive investment cycle strongly influences the dynamics of international commerce due to its relatively high import content relative to that of private consumption, and public consumption in particular, which is comprised essentially of non-tradeable items, such as services or nationally-produced goods, notably in the defence sector. According to a study by Mattieu Bussière et al. in the American Economic Journal (2013), the import content of investment averaged 32% in 2005, compared to 25% for private consumption and 10% for public consumption.

Investment collapsed during the crisis, especially housing investment. Since then, it has simply returned to pre-2008 levels in many developed countries. Investment continued to rise in numerous emerging countries, at least until 2013, but at a much milder pace than before the crisis. Its weight as a share of GDP has held relatively stable due to infrastructure investment in China, which is less import intensive. The weighting of global gross capital formation as a share of GDP is slightly lower than the pre-crisis level (23.3% in 2014 vs. 24.3% in 2008), while the weightings of private consumption and public consumption have both increased, especially the later (see chart 6).



Weight of various components of GDP



Several factors contributed to the sluggishness of investment spending. Weak global demand – both domestic and external – continued to strain productive investment via the accelerator mechanism. Uncertainty over growth prospects and economic policies also encouraged companies to postpone certain investment spending, despite low financing costs. In many countries, efforts to clean up public finances also strained public sector investment. In the emerging economies, excessive development of production capacity also generated a global glut in some sectors, squeezing prices and the return on additional investment.

This brings us to the question of whether the change in the composition of demand is cyclical, or if, to the contrary, it is due to a more structural change, reflecting a more long-term trend. Moreover, this change alone is not a sufficient explanation for the decline in the elasticity of world trade to GDP since the crisis. Indeed, elasticity began to decline as of the early 2000s, at a time when investment as a share of GDP continued to increase.

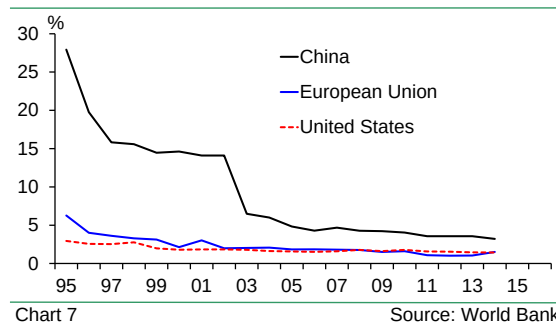
A new framework for world trade?

The rise of protectionism

For the moment, the level of trade tariffs is still relatively stable at the world level (see chart 7). It is harder to monitor changes in non-tariff barriers, which alone shape two thirds of world trade. Non-tariff

barriers to trade include technical regulations, standards, conformity assessments and sanitary and phytosanitary measures. These barriers are not always intended to hamper international commerce. Sometimes they are designed to support an economy or industry. Yet these measures are often opaque. Collected data is often a bit piecemeal, making comparisons between countries difficult. Since the crisis, however, certain countries seem to be tempted by protectionist measures. In its 2015 report, UNCTAD, the UN Conference on Trade and Development, claims that in the years following the crisis, there has been an increase in subsidies to support national industries and in measures to prevent jobs from being relocated abroad. The increase in new trade-restrictive measures registered by WTO, and the number of investigations opened, also provide an idea of protectionist pressures, although the opening of an investigation does not presuppose the protectionist nature of the measure. In its July 2016 report, the WTO identified a monthly average of 17 new trade-restrictive measures (anti-dumping, countervails and safeguards) by its members, essentially anti-dumping actions, between mid-October 2015 and mid-May 2016. In the year-earlier period, the monthly average was 13 new trade-restrictive measures. Between mid-October 2015 and mid-May 2016, the WTO also recorded 22 other trade measures per month (import and export rights and restrictions), up from 15 in the year-earlier period. This is the highest monthly average since 2011, the year when new trade-restrictive measures reported by the WTO reached a record high.

Tariff rate applied, weighted mean, all products



According to UNCTAD and the IMF, the impact of these new restrictions on international trade is still mild. They are not big enough in scope yet to have a significant impact. Yet it is not so much the rise of protectionism as the slower pace of globalisation that risks influencing the dynamics of world trade. Indeed, deregulation seems to be slowing down since the crisis.

As a result, several free-trade agreements under negotiation or pending ratification are struggling to survive. Donald Trump, the new President of the United States, is thus opposed to the ratification of the Transatlantic Trade and Investment Partnership (TTIP), concluded by twelve countries in North and South America and Asia⁶, which account for 40% of world GDP, in February 2016.

The United States and the European Union, which together account for nearly a third of world GDP (at purchasing power parity), are also struggling to reach an agreement on the Transatlantic Trade and Investment Partnership, better known as TTIP. The broad range of topics covered by TTIP has contributed to the slow pace of negotiations. The treaty aims to reduce tariffs as well as non-tariff barriers to trade such as laws, regulations and standards. Presently, negotiations are also being hampered by the defiance of political leaders, which must be seen in the light of the growing mistrust of local populations with the approach of major elections.

Slowdown in the international segmentation of production

The expansion of supply chains and vertical specialisation helped increase the elasticity of world trade to economic activity from the 1990s through the mid-2000s. Similarly, the slowdown in this process since the mid-2000s seems to go hand in hand with the reduction in the elasticity of world trade to economic activity.

This change is notably visible in China and the United States, which accounted for 9.9% and 13.5%, respectively, of global imports of goods and services in 2015. The import content or imported valued added of Chinese exports declined by 3 points to 32.2% between 2005 and 2011. At the same time, the import content of US exports increased by 1.6 points to 15% in 2011,

suggesting that the segmentation process is weakening (see chart 8). The same phenomenon can be seen in the reduction in the ratio of intermediate goods imports to merchandise exports in China and in its increase in the United States since 2012 (see chart 9).

Import content of exports

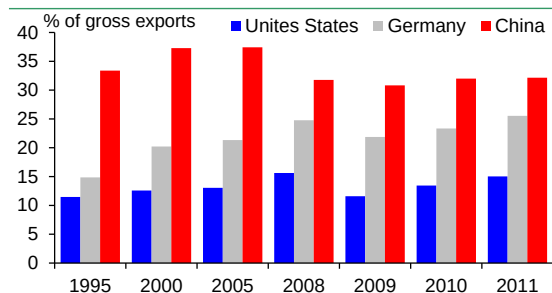


Chart 8

Source: OECD

Imports of intermediate goods/Total goods exports

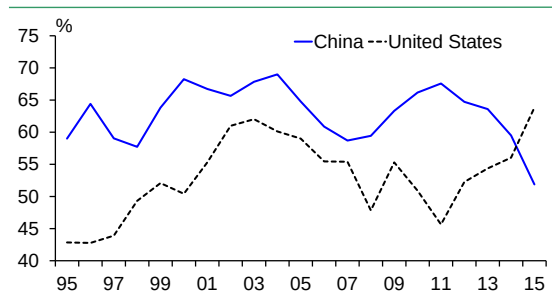


Chart 9

Source: World Bank

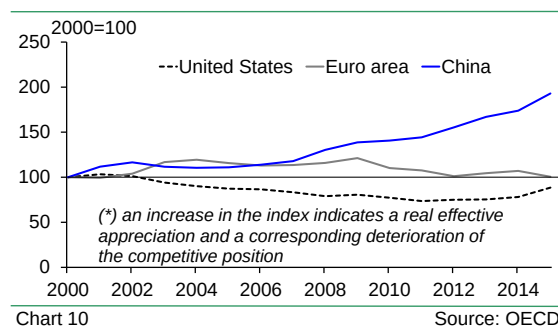
There are several reasons why this segmentation process is slowing down. Part of these changes are due to the slowdown in growth. The segmentation of the production process is pro-cyclical and tends to coincide with GDP growth trends. Some companies postpone outsourcing projects during periods of slowing growth because the business climate is more uncertain. Foreign direct investment is also increasing at a milder pace than before, notably in China.

Apparently, this slowing process also signals some structural changes. There are probably several reasons for this.

The segmentation of the production chain might be winding down because the process has reached its limits. The gains generated by the segmentation process in the 1990s and early 2000s are not sustainable. Most of what can be done in terms of trade deregulation has already been accomplished. The technological shock of the 1990s has largely been absorbed. Moreover, supply chain segmentation carries risks. Natural disasters (such as earthquakes) or labour unrest can halt production and disrupt the entire supply chain. Seeking to limit risk taking, some companies might opt to curb supply chain segmentation. To better respond to demand, some companies might want to avoid distancing themselves too much from end consumers, and may even opt to move closer to them.

The increase in wage costs at a faster pace than productivity gains, notably in China, might also dissuade some companies from developing vertical specialisation, which depends on the comparative advantages of each country in terms of labour and technology. Eventually, this could strain intra-division merchandise trade. We must also factor in the appreciation of the Chinese yuan since 2014. China's competitiveness, as measured against unit labour costs in the OECD, has deteriorated by nearly 60% between 2007 and 2015 (see chart 10).

Relative unit labour cost, overall economy (*)



Upmarket shift in the emerging countries

Some emerging countries also want to revise their economic growth models. This is notably the case for

China, which has adopted a substitution strategy by producing increasingly sophisticated intermediate goods to replace previously imported products. Its assembly business has slowed in favour of ordinary trade, in which imports are not designed to be used in exports, but to meet end domestic demand. This process resulted in less segmentation of production and a weakening of international trade dynamics.

What about world trade trends?

The slowdown in world trade is in part cyclical. More robust GDP growth should be accompanied by an acceleration in world trade. In the emerging and developing economies, however, investment is unlikely to increase as buoyantly as it did before the crisis. In particular, the shift in the balance of the Chinese economy cuts into the growth potential of world trade.

Generally speaking, the framework for world trade is probably about to change. The review period is too short to take into account all of the changes currently at work, and to know with any certainty which of these changes are structural. Even so, we have tried to identify a few areas of reflection. This raises the question of whether the international segmentation of the supply chain has exhausted its potential because the globalisation process has run its course and certain emerging economies have changed strategies.

A less propitious framework for world trade

Future free-trade agreements are likely to produce smaller gains compared to those of the past. We are even likely to see some backtracking. The outcome of the Brexit referendum is one example. Yet the UK and the EU have built up major commercial ties in recent decades, raising hopes that a compromise can be reached to limit Brexit's impact on trade.

For the same reasons, and given the vast web of international production networks currently in place, it seems unlikely that the free-trade agreements negotiated by many economies in recent decades will be seriously challenged.



Shift in supply chains

New uses of technology

On the one hand, new technological uses could help shorten supply chains. Supply chain segmentation hedges between the gains produced by specialisation and the costs associated with the coordination of the different phases of production and related risks. In this respect, new communication technology and the reduction in transport costs helped expand supply chains. Yet the way certain products are produced must also evolve. New functions can expand an employee's skills by computerising certain tasks, some of which might be grouped together.

This new phenomenon is best illustrated by the use of 3D printing. It is hard to foresee in any detail how this budding industry will affect the production process. Yet this new technology could reconfigure the relations between companies and their clients, and transform the localisation of production. With the push of a button, companies can "print" complex parts that previously would have required the assembly of several components. Thanks to this technology and the concomitant reduction in the labour intensity of the production process, some goods might be able to be produced again in countries with high labour costs. Consumers, for example, might be able to repair products on their own, by simply "printing" the damaged part or component. Data transfers for the production of products "printed" locally would partially replace some merchandise trade.

This new technology will not necessarily replace more traditional production processes, but it could contribute to new output combinations and help shorten the supply chain.

A new geographic landscape

Inversely, some commercial ties could intensify, bolstering the international segmentation of the supply chain.

Higher wage costs have several effects. They reduce a country's competitive advantage and the

attractiveness of trade, but they also change the nature of trade. Wage differentials are not the only determinants of supply chain segmentation and trade. Through trade, countries are able to respond to consumer demands for a greater variety of differentiated products and corporate demands for economies of scale.

With higher incomes, trade often increases with other industrialised countries, as illustrated by trade between the United States and the European Union. In this case, we move from vertical specialisation – i.e. importing goods to be incorporated in exports – towards horizontal specialisation in countries in which wages are converging and which trade in similar differentiated goods. The big increase in Chinese direct investment flows abroad, which have more than doubled since 2008, illustrates the change in China's strategy. It is now the world's third biggest investor behind the United States and Japan, and a major investor in the developed countries.

At the same time, higher wages in some emerging countries can be accompanied by the extension of the supply chain towards other countries, such as Vietnam in China's case. Supply chains can be expanded to neighbouring low-wage countries. Foreign direct investment flows to Vietnam increased 5-fold between 2006 and 2015. This new division of labour could boost trade even more since companies that have already set up business in China will not necessarily leave the country.

The development of the African and South American economies could ultimately play a decisive role as well. Trade flows are currently concentrated within the richest or most dynamic regions of the world, namely the European Union, Asia and North America. These regions accounted for 14.4%, 33.7% and 34.2% of world merchandise exports in 2015. But an economic expansion in Africa and South America will probably be accompanied by an intensification of trade within these regions, and between them and the other regions of the world.





Although several factors are contributing to the sluggishness of world trade, it is hard to determine their respective weightings. Some factors are cyclical, such as sluggish eurozone growth and the slowdown in the emerging economies. The composition of demand is also changing in favour of household consumption and public spending, which strains the dynamics of trade since the import content of consumption is lower than for investment. These factors are linked to the crisis and could come to a halt. Yet other factors are structural.

Globalisation is losing steam and protectionism (non-tariff barrier) is rising. The technological shock of the 1990s has largely been absorbed. Moreover, rising labour costs in China and the upmarket shift in certain emerging economies are undermining vertical specialisation. All these factors are hampering the international segmentation of the supply chain and global trade.

In the future, other trends with opposing influences will shape trade growth. New technological practices such as 3D printing will expand workers' scope of expertise by computerising certain tasks, some of which will be pooled together and conducted in countries with high labour costs. Inversely, wage growth in China could lead to the development of trade in similar goods and the extension of supply chains towards neighbouring countries with low labour costs.

16 November 2016

catherine.stephan@bnpparibas.com

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NOTES

¹ *Foreign Direct Investment for Development*, OECD, 2002

² Germany, Austria, Belgium, Spain, Finland, France, Ireland, Italy, Luxembourg, the Netherlands and Portugal

³ Greece (since 1/1/2001), Slovenia (1/1/2007), Cyprus (1/1/2008), Malta (1/1/2008), Slovakia (1/1/2009), Estonia (1/1/2011), Latvia (1/1/2014) and Lithuania (1/1/2015).

⁴ The openness ratio is the average ratio of imports and exports over GDP.

⁵ A direct investment occurs when an equity stake in a foreign company exceeds 10% of its capital.

⁶ United States, Brunei, Chile, New Zealand, Singapore, Australia, Peru, Vietnam, Malaysia, Mexico, Canada and Japan



Argentina: a radical change

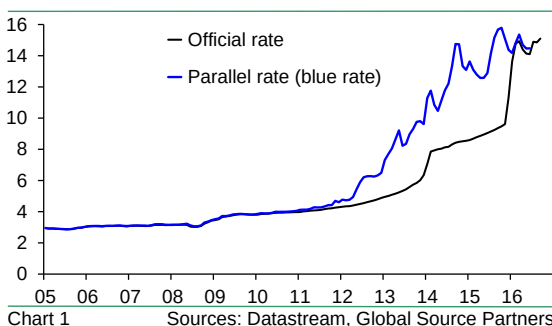
François Faure / Sylvain Bersinger

Argentina's economic policy has taken a more liberal turn since Mauricio Macri took power in November 2015. The new government's first measures were mainly designed to shore up the country's external liquidity and bolster its image in the eyes of the international financial community. This change of direction occurs at a time when the country has entered recession, inflation remains stubbornly high and the clean-up of public finances is only just getting underway. In the medium term, recent reforms could prove to be an effective way to attract non-resident and resident investment.

Argentina has undergone an economic "big bang" since Mauricio Macri took the helm in November 2015. The official exchange rate – which was notoriously overvalued – was abruptly devalued to eliminate the spread with the parallel exchange rate, and currency controls were eased. Export taxes on most agricultural products have been removed and tariffs on natural gas, water and transportation have been raised drastically. After the settlement of arrears with holdouts – the creditors who did not take part in the debt restructuring of 2005 and 2010 –, the country successfully tapped the international bond market. These energetic measures were launched even though the economy had entered recession, weakened by low commodity prices, Brazil's recession and surging inflation, which ended up eroding household consumption, the main growth engine.

In the medium term, these reforms should bolster the country's economic credibility, secure access to global markets and reduce structural inflation pertaining to money creation, which should eventually allow the country swing back into a more stable and better balanced growth. We should not assume that these reforms will be successful, however, given the deterioration in public finances and the strong opposition to fiscal consolidation measures (for instance the huge increases in tariffs on gas and electricity have been challenged before the courts). Moreover, even if the popularity rating of the new government remains high, the shock therapy may generate a strong popular discontent if high inflation and surging unemployment persist.

Exchange rate USD/ARS



Successful return to international markets

Mr. Macri's top priority was to normalise Argentina's relations with the rest of the world. Since the beginning of the decade, disputes have broken out with numerous trading partners: the European Union and the United States faced severe import restrictions, and the EU filed suit with the World Trade Organisation in 2012. The lawsuit was triggered by the 2012 nationalisation of YFP (*Yacimientos Petroliferos Fiscales*), a company previously owned by the Spanish oil company Repsol. There were also growing tensions with the other Mercosur countries, notably Uruguay, on both economic and environmental issues. Lastly, disagreements with the multilateral institutions persisted under the Kirchner administration, notably with the International Monetary Fund after it questioned the reliability of Argentina's inflation and GDP statistics. As a result, Argentina was virtually locked out of international markets.



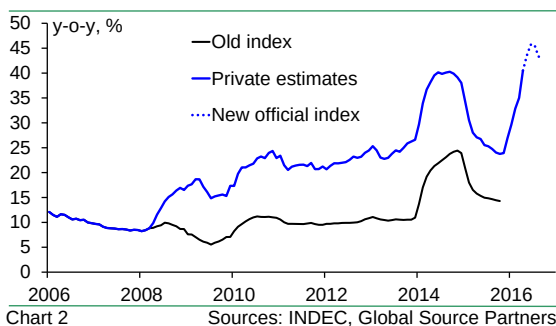
The main breakthrough that improved relations with the rest of the world occurred when the Macri government reached a settlement with holdout bondholders. Two sovereign debt restructuring agreements reached in 2005 and 2010, which reduced the debt by about 70%, were accepted by 93% of creditors. Yet activist hedge funds filed suit to be repaid at full value for bonds purchased at a very steep discount on the secondary market. The bond issue was governed by New York law, and Judge Thomas Griesa ruled in favour of the hedge funds. The Argentine government refused to pay, not only on principle but also because it would have had to repay in full all its creditors, both renegotiated bondholders and holdouts. A court injunction prevented Argentina from repaying its renegotiated bondholders, and the country was categorised as being in selective default as of 30 July 2014.

In keeping with his campaign promise, Mr. Macri brought this legal deadlock to an end in March 2016 by agreeing to pay the hedge funds and other holdouts a total of about USD 4.6 bn. As a result, Argentina was able to rejoin the international markets. In April 2016, the state issued USD 16.5 bn in international bonds. Thanks to strong demand, bond yields were slightly lower than initially expected (7.5% for 10-year bonds, vs. expectations of 8%). This successful return to the international markets bolsters Mr. Macri's strategy and reflects investors' renewed confidence.

The huge inflationary shock earlier this year is winding down...

Official inflation, which has been higher than 10% since 2012, surged to 16% in 2015 despite price controls. According to the IMF and private estimates, inflation would have reached about 30% over the period. The main factor fuelling inflation was a major expansion of money supply. In 2012, BCRA (Banco Central de la Republica Argentina) eliminated its inflation target and financed the public deficit via money creation. Between 2007 and 2015, money creation increased twice as fast as GDP.

Inflation rates



One of the new president's main commitments is to bring inflation under control. So far, the first eight months of his administration have been disappointing. The recently revised consumer price index – which closely tracks variations in the index for Greater Buenos Aires – accelerated from 24% in November 2015 to 43.7% in September 2016. The sharp devaluation of the peso drove up prices of imported goods. The elimination of natural gas and electricity subsidies also led to big increases in energy prices¹. Yet this effect has begun to wind down: the Buenos Aires consumer price index has slowed sharply, dropping from 6.5% m/m in April to about 2% since July². One positive point is that disinflation has gone hand in hand with a net slowdown in the aggregates of money supply growth, which lost 10 percentage points on average between December 2015 and September 2016.

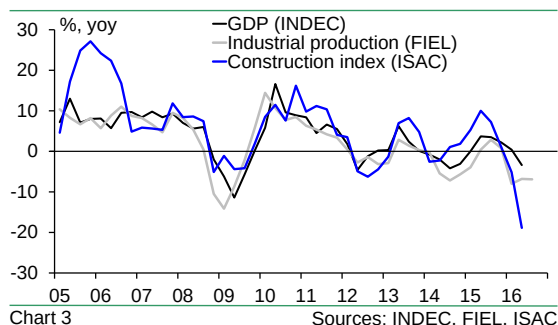
The inflation target announced by the Macri government (1% a month in 2017) is not completely out of reach once public utility prices have been adjusted (notably energy prices). Yet this means that nominal wages and pensions would have to be partially indexed to past inflation, which would be hard to achieve. Indeed, the government inherited a deteriorated economic situation. It risks losing ground in the 2017 general elections if people are asked to make too many sacrifices (via higher energy prices, for example), even though the reforms might pay off in the medium term, by improving the potential growth rate and creating a more stable macroeconomic environment.



... and the recession could be brief

The economy would experience a recession of about -2% in 2016, vs. +2.4% in 2015, due to a very poor H1 performance, notably in Q2 marked by a sharp downturn in activity indicators in industry and construction. Real GDP was already down 1.5% year-on-year in H1.

Economic activity indicators



Total exports held up well (+5.4%), buoyed by a rebound in unprocessed and processed agricultural exports (see below). Yet foreign demand is weakening due to Brazil's recession and the economic slowdown in Latin America in general. Exports of industrial goods continued to contract, down 11% in volume after a 2015 decline of 20%.

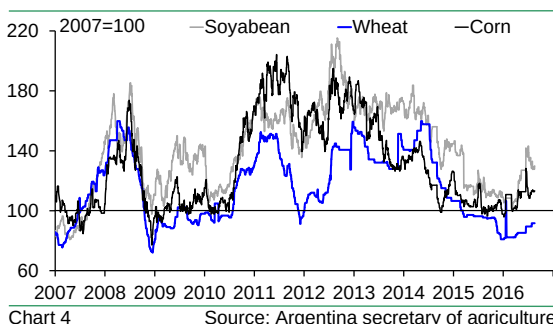
However, high inflation erodes household purchasing power and, in turn, private consumption, which declined 1.5% in H1 2016 (including a Q2 decline of 3%) and the unemployment rate exceeds 9%. Labour unions are demanding big wage increases to keep pace with inflation, but prices are likely to rise faster than wages given the increase in natural gas and electricity prices. Mr. Macri's campaign platform included eliminating subsidies and letting the laws of supply and demand determine prices. Although these reforms might be beneficial in the medium term, they will inevitably cut into consumption in the short term.

Most importantly, investment contracted sharply, down 4.2%. Investment as a share of GDP is now only 19%, down from 21% at the beginning of the decade. The

change of government resulted in a freeze on public investment, triggering the collapse of activity in the construction sector. Foreign direct investment has also slowed sharply. Even though the key 35-day Lebac rate was lowered from 38% to 27.5% in April, real interest rates are still very high for companies and households, especially in the light of the recent slowdown in inflation.

Encouraging signs over the summer months (increase in domestic car purchases and cement sales) have raised hopes for a rather quick end to the recession and a strong rebound in 2017, buoyed by 1/ the consolidation of commodity prices, 2/ slowing inflation, which paves the way for lower real interest rates, 3/ mild fiscal tightening, 4/ a gradual upturn in FDI and 5/ capital repatriation by residents benefiting from tax amnesty (see below).

Commodity prices



Even so, the potential growth rate could be set back by structural weaknesses, such as the lack of infrastructure investment (notably in transport and energy) and the poor ranking of Argentina's business climate. Mr. Macri has pledged to improve these weak points.

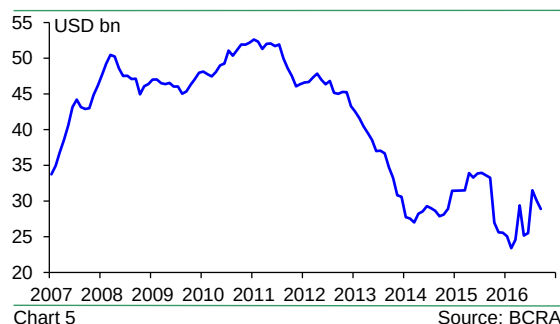
External accounts: liquidity has stabilised, but competitiveness has eroded

External liquidity has become a growing concern in recent years. The Kirchner government implemented numerous currency controls to limit capital flight. Export companies had to convert their foreign currency income

into pesos in the domestic market; there were limitations on foreign currency purchases by residents; import taxes were raised and certain imports required written authorisation. All these measures proved to be fairly ineffective in limiting capital flight by residents, which the IIF estimates at nearly USD 6 bn a year between 2011 and 2015. Foreign reserves plunged from nearly USD 49.7 bn at year-end 2010 to USD 23 bn at year-end 2015.

In December 2015, the new government lifted or sharply scaled back most of these currency controls, and the central bank stopped using its reserves to stabilise the peso. As of the first months of 2016, this move cut short the outflow of foreign reserves, which began swelling again, to USD 29 bn by the end of September. Now that capital controls have been lifted, direct investment should begin to pick up again.

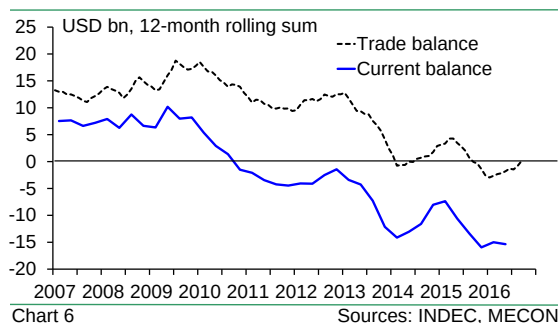
Official foreign exchange reserves



These changes were necessary in the light of the swelling current account deficit, which rose to nearly USD 16 bn in 2015 (2.7% of GDP). After reporting a trade surplus since the beginning of the decade, Argentina swung into a trade deficit. Exports plunged 17% in 2015 due to the decline in agricultural prices (unprocessed and processed agricultural products accounted for 62% of total exports in 2015) and the recession in Brazil, Argentina's leading trading partner. Yet the trade deficit has narrowed since the beginning of the year, thanks to the rebound in agricultural exports, both in value and in volume. On the one hand, soya and corn prices picked up, and

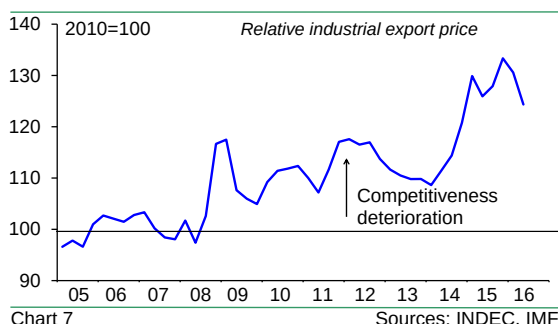
on the other, with the elimination of export taxes and the peso's massive devaluation, exporters managed to sell production that they had been keeping as inventory.

Trade and current account balance



Yet external competitiveness is still a weak point. Industrial competitiveness has deteriorated through 2015: prices of Argentina's non-farm industrial exports declined less than those of its competitors in the developed world. Despite devaluation, competitiveness probably did not improve since the real exchange rate continued to appreciate. The elimination of trade barriers is also expected to favour imports of finished products.

Export price competitiveness



It will take time to build up the industrial export base, which will require imports of machinery and capital goods. Moreover, the energy deficit will remain high

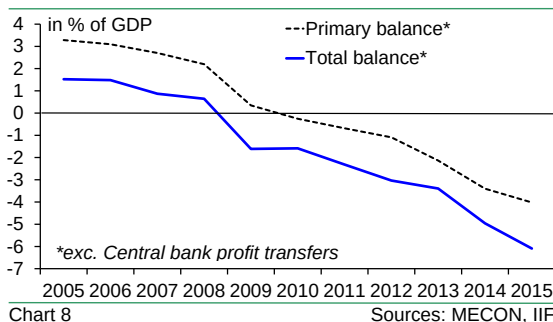
structurally as long as investments in this sector are not fully effective. As a result, the trade balance will continue to be volatile, and will depend largely on commodity prices. The country is unlikely to return to the double-digit trade surpluses (in USD billions) observed between 2002 and 2012.

Renewed access to world financial markets should facilitate the financing of the current account deficit in the years ahead. Yet it would be best if this financing did not generate debt. In the first six months of the year, net FDI inflows amounted to only USD 2.8 bn, compared to nearly USD 5 bn in H2 2015. Yet tax amnesty, which took effect in August 2016 (see below), could trigger massive capital repatriation (up to USD 24 bn if successful). This would more than offset the increase in external debt servicing charges on newly issued international bonds. Yet the success of tax amnesty must first be confirmed. More specifically, it will take time for the Macri reforms to have a sufficient impact on FDI inflows for foreign investors to consider Argentina to be a safe place to invest in the long term.

Public finance consolidation still lies ahead

Public finances have deteriorated significantly in recent years and are a bigger source of concern than the external accounts. From 2003 to 2011, strong economic growth helped improve public statistics. During this period, high export taxes generated large fiscal revenues due to the increase in agricultural prices. Starting in 2011, however, public finances began to deteriorate under the double impact of slower growth and higher spending, mainly with the approach of the presidential election. The federal government's "adjusted" primary deficit³ has widened since the mid-2000s, to 4.1% in 2015. Last year, the total "adjusted" deficit reached 6.1% of GDP, and even 7.1% including provincial government budgets. Worse, the federal deficit has been largely financed through foreign reserves and central bank loans in recent years (in addition to the transfer of profits).

Federal government budget balances



Thanks to the recession, the "adjusted" primary deficit should continue to widen towards 5% in 2016. But this trend also shows how the government does not want to stifle the fledgling recovery by tightening fiscal policy too abruptly. In his 2017 budget proposal, finance minister Alfonso Prat-Gay calls for the primary deficit to be reduced to 4.2%, compared to the previous target of 3.3%, based on a relatively optimistic but feasible growth forecast of 3.3%. Although the authorities seem to be firmly determined to make gradual improvements, the reforms have completely changed public finance management in recent months.

Mr. Macri's gradual fiscal adjustment strategy is based on cutting spending rather than raising taxes. Primary spending is expected to be trimmed from 24.5% of GDP in 2015, to 23.5% in 2017. But spending displays considerable inertia as showed by the resistance to subsidies cuts, which accounted for 3.4% of GDP in 2015. Indeed, the elimination of subsidies has been the main target of the government. In April, natural gas and electricity subsidies were eliminated but were then partially reinstated in August for individuals following the Supreme Court's ruling in favour of public hearings. In early October, the government has had to propose a new schedule of increases in gas tariffs for individuals (up to 2019) and social tariffs to protect the poorest households have been confirmed. Finally, in 2016, subsidies will probably remain stable (in percentage of GDP) and are expected to decrease by only 0.5% of GDP in the draft budget for 2017.

A tax amnesty law was introduced in June 2016⁴. Using an optimistic scenario, tax amnesty should generate USD 2.3 billion in fiscal revenue (0.5% of GDP), and by the end of amnesty in March 2017, a total of USD 6 bn in new sources of financing for the Treasury (1.1% of GDP). The government intends to use this one-off revenue to repay pension holders that did not receive their full pensions in previous years. Although the potential revenues from tax amnesty have already been allocated, they could still have a major impact on confidence.

The fiscal deficit will remain large but the financing plan has already improved. Thanks to renewed access to international markets, the deficit will be increasingly financed via bond issues. This year, international issues were a big success and domestic issues are proceeding smoothly. As a result, central bank financing should drop off sharply this year to 20% (excluding the repayment of holdouts), compared to 45% in 2015.

Government reforms and the settlement of arrears seem to have restored the rating agencies' confidence. But public finances remain fragile. In the short term, not only the fiscal deficit will be large but financing might not be as easy as it was in 2016, the year of change. The government might not be able to call on the market as much as it has this year, while financing by the central bank financing are likely to contract further. Moreover, the federal government should have increased by about 14 percentage points between year-end 2011 and end-2016 to reach about 52% of GDP. The average maturity is relatively long (7.8 years in March 2016) but the share of fx-denominated or fx-indexed debt is very high (72%). As a consequence, stress tests show a huge vulnerability of the debt-to-GDP ratio to exchange rate shocks.

A resilient banking sector faces headwinds

Argentina's banking sector is still relatively conservative with a loan/GDP ratio of 15% and an overall loan/deposit ratio of 88% in 2015. According to BIS estimates, household and corporate debt was very mild at 6.1% and 12.7% of GDP, respectively, in March 2016.

Banks have satisfactory levels of capitalisation, with a Tier 1 capital adequacy ratio of 14.9% in Q1 2016. The doubtful loan ratio is also low at 2% in early 2016. The net external position of bank deposits (foreign assets minus foreign liabilities) generally strikes an equilibrium, and foreign currency loans account for only about 15% of total loans outstanding. The banking sector is not a particularly big user of securitisation or derivatives for transferring risks off balance sheet. Consequently, at first sight the banking sector as a whole does not seem to be especially vulnerable to credit and market risk.

Bank credit to the private sector

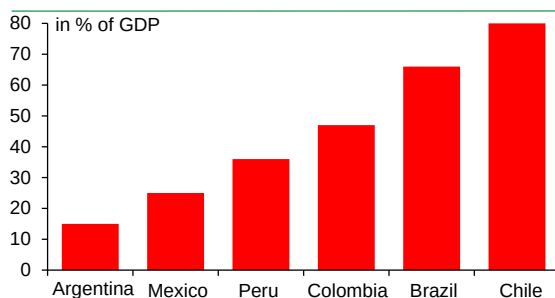


Chart 9 Sources: IMF, BNP Paribas

The biggest threats facing the banks are: 1) an increase in non-performing loans due to the recession and volatile commodity prices (in the non-financial, private sector, debt is relatively high at 60% of exports of goods and services), and 2) exposure to sovereign risk, since federal and local government commitments account for 40% of total commitments.

The banking sector also faces several constraints. Banks are still required to lend to SMEs at real negative interest rates, while fees and commissions are capped. Consequently, the public banks have lower profit margins and capitalisation ratios than private banks. These restraints should be gradually lifted by Federico Sturzenegger, the new central bank governor named by Mr. Macri in December 2015.

High inflation is another constraint that makes it harder to estimate risk, and which increases costs and operating expenses. As a result, lending is mainly short

term (about 1 year according to the IMF) and generally in fixed rate instruments. Lending rates are high, even though they have begun to decline in keeping with cautious monetary easing. The average lending rate was 30% in August 2016, down from 38.7% in April.

Lastly, the main source of financing is still deposits, which accounted for about 80% of total financing according to the IMF. In the past, this has resulted in outbreaks of panic and bank runs (mainly during the 2001 crisis). As the IMF points out, liquidity demand tends to be less stable in Argentina than in other countries.

If the macroeconomic situation is successfully stabilised, then the banking sector is likely to experience a period of growth. The normalisation of relations with external creditors has enabled local banks to rejoin the international financial markets. Encouraged by deregulation and reforms, foreign banks are also likely to invest in Argentina. Vast opportunities exist for the banks to expand their business. Argentina's loan penetration rate is low, and only a third of the Latin American average. Banks are well capitalised and could step up loan production. Deposits could also swell if macroeconomic stability is ensured. According to a Fed study⁵, Argentina is one of the countries where the dollar is hoarded most by households. Total dollar hoarding is estimated at USD 50 bn. Inflation and exchange rates need to level off in order to reduce real interest rates and expand lending.

therapy, consisted mainly of rebuilding external liquidity and shoring up the country's image in the eyes of the international financial community. Although it will take a while to clean up public finances and bring inflation under control, the measures implemented so far could have a negative short-term impact, like cutbacks in subsidies, which have fuelled higher inflation and social discontent. But the government's gamble will have paid off if it successfully manages to attract foreign companies and, above all, to convince Argentine companies to begin investing in the economy again.

28 October 2016

francois.faure@bnpparibas.com



Argentina has been steering towards a major turning point over the past year, after a decade marked by the Kirchners' strong economic interventionism. Mauricio Macri's new economic policy has a resolutely liberal bent that clearly contrasts with his predecessor's policies. Of course, it is still too early to try to assess the reforms that have been undertaken. Macri's first measures, which some compared to a kind of shock



NOTES

¹ On April 1st, in the Buenos Aires metropolitan area, electricity tariffs were raised by an average of 250% and those on natural gas, water and transportation by a 100%-300% range. Increases in gas and electricity tariffs have been challenged before the courts, leading the government to suspend gas tariffs temporarily (until early October) and to propose an extension of the schedule for the elimination of gas subsidies over four years (i.e. up to 2019) versus two previously. To reduce the impact on low-income households, the government introduced special social welfare rates that should benefit to 20% of the consumers. Moreover, households that managed to reduce consumption were granted discounts.

² In August and September, the increase was less than 2% due to the suspension of April's natural gas price increase, following the Supreme Court's ruling. Core inflation is about 1.5%.

³ I.e. the balance excluding interest charges and central bank profits transferred to the State budget. This is the official deficit target.

⁴ Tax amnesty allows savings held abroad to be repatriated without justifying their origin. Individuals and companies can declare these assets and pay a special tax (from 0% to 10% depending on the amount), or invest in sovereign bonds or mutual funds with specific investment targets. Resident assets held abroad are estimated at between USD 250 bn and USD 500 bn, according to INDEC and CEFIDAR studies. Yet even using optimistic assumptions, the total amount of assets eligible for tax amnesty is estimated at USD 60 bn.

⁵ "Crisis and Calm: Demand for U.S. Currency at Home and Abroad from the Fall of the Berlin Wall to 2011" Ruth Judson, Board of Governors of the Federal Reserve System, 2012.

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Chief Editor: William De Vijlder



GROUP ECONOMIC RESEARCH

■ **William DE VIJDER**
Chief Economist

+33(0)1 55 77 47 31

william.devijlder@bnpparibas.com

ADVANCED ECONOMIES AND STATISTICS

■ **Jean-Luc PROUTAT**
Head

+33.(0)1.58.16.73.32

jean-luc.proutat@bnpparibas.com

■ **Alexandra ESTIOT**

Works coordination - United States - United Kingdom - Globalisation

+33.(0)1.58.16.81.69

alexandra.estiot@bnpparibas.com

■ **Hélène BAUDCHON**

France (short-term outlook and forecasts) - Labour markets

+33.(0)1.58.16.03.63

helene.baudchon@bnpparibas.com

■ **Frédérique CERISIER**

Euro Area - European Institutions and governance - Public finances

+33.(0)1.43.16.95.52

frederique.cerisier@bnpparibas.com

■ **Thibault MERCIER**

France (structural reforms) - European central bank

+33.(0)1.57.43.02.91

thibault.mercier@bnpparibas.com

■ **Manuel NUNEZ**

Japan, Ireland - Projects

+33.(0)1.42.98.27.62

manuel.a.nunez@bnpparibas.com

■ **Catherine STEPHAN**

Spain, Portugal - World trade - Education, health, social conditions

+33.(0)1.55.77.71.89

catherine.stephan@bnpparibas.com

■ **Raymond VAN DER PUTTEN**

Germany, Netherlands, Austria, Switzerland - Energy, climate - Long-term projections

+33.(0)1.42.98.53.99

raymond.vanderputten@bnpparibas.com

■ **Tarik RHARRAB**

Statistics and Modelling

+33.(0)1.43.16.95.56

tarik.rharrab@bnpparibas.com

BANKING ECONOMICS

■ **Laurent QUIGNON**
Head

+33.(0)1.42.98.56.54

laurent.quignon@bnpparibas.com

■ **Céline CHOLET**

+33.(0)1.43.16.95.54

celine.choulet@bnpparibas.com

■ **Thomas HUMBLLOT**

+33.(0)1.40.14.30.77

thomas.humbloit@bnpparibas.com

■ **Laurent NAHMIAS**

+33.(0)1.42.98.44.24

laurent.nahmias@bnpparibas.com

EMERGING ECONOMIES AND COUNTRY RISK

■ **François FAURE**
Head

+33.(0)1.42.98.79.82

francois.faure@bnpparibas.com

■ **Christine PELTIER**

Deputy Head - Greater China, Vietnam - Methodology

+33.(0)1.42.98.56.27

christine.peltier@bnpparibas.com

■ **Stéphane ALBY**

Africa (French-speaking countries)

+33.(0)1.42.98.02.04

stephane.alby@bnpparibas.com

■ **Sylvain BELLEFONTAINE**

Turkey, Brazil, Mexico, Central America - Methodology

+33.(0)1.42.98.26.77

sylvain.bellefontaine@bnpparibas.com

■ **Valérie PERRACINO-GUERIN**

Africa (English and Portuguese speaking countries)

+33.(0)1.55.77.80.60

valerie.perracino@bnpparibas.com

■ **Pascal DEVAUX**

Middle East, Balkan countries - Scoring

+33.(0)1.43.16.95.51

pascal.devaux@bnpparibas.com

■ **Anna DORBEC**

CIS, Central European countries

+33.(0)1.42.98.48.45

anna.dorbec@bnpparibas.com

■ **Hélène DROUOT**

Asia

+33.(0)1.42.98.33.00

helene.drouot@bnpparibas.com

■ **Johanna MELKA**

Asia, Russia

+33.(0)1.58.16.05.84

johanna.melka@bnpparibas.com

■ **Alexandra WENTZINGER**

South America, Caribbean countries

+33.(0)1.42.98.74.26

alexandra.wentzinger@bnpparibas.com

■ **Michel BERNARDINI**
Public Relation Officer

+33.(0)1.42.98.05.71

michel.bernardini@bnpparibas.com



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